

Application No. 10/810,081

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REMARKS

Claims 1, 3-7, 49, 51-54 and 67-90 were previously presented. Claim 2 is currently amended. Claims 8-37 and 50 are canceled. Claims 38-48 and 55-65 are withdrawn. Accordingly, claims 1-7, 49-54, and 66-90 are pending examination.

Objection to the specification

In response to the objection to the specification, the Applicant has canceled paragraph [0003].

Objection to Claims

In response to the objection to the claims, the Applicant has canceled claim 50.

Rejection of Independent Claims 1 and 49

Independent claims 1 and 49 stand rejected as being unpatentable over U.S. Patent number 5,606,077 (Lersch) in view of U.S. Patent number 6,783,897 (Kang).

The cited art does not teach or suggest every element of the claims.

Independent claims 1 and 49 each recites an electrolyte having a particular polysiloxane. Neither Lersch not Kang teaches or suggest an electrolyte having the claimed polysiloxane. Further, when considered in combination, Lersch and Kang still fail to teach or suggest an electrolyte having the claimed polysiloxane. Kang teaches an electrolyte having a polysiloxane. However, the polysiloxanes disclosed in Kang are precursors for the electrolyte. In Kang's electrolyte, the disclosed polysiloxanes react to become cross-links between another polymer in the electrolyte (C4, L43-46, etc.). This cross-linking is achieved by reacting acryl functional groups on the polysiloxane (C4, L43-46, etc.). There is nothing in Lersch indicating that Lersch's polysiloxanes would react to cross-link another polymer in an electrolyte. Further, the polymers of Lersch do not have the functional groups that are used in Kang's cross-linking reaction. As a result, there is nothing in the cited art indicating that Lersch's polysiloxane could be successfully substituted for Kang's polysiloxanes. Accordingly, even when Lersch and Kang are considered in combination, they fail to teach or

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suggest an electrolyte having the claimed polysiloxane. Since Lersch and Kang do not teach or suggest every element of claims 1 and 49, claims 1 and 49 are patentable over the cited art.

The Applicant has Achieved an Unexpected Result.

The Applicant has achieved an unexpected result. For instance, the Applicant's paragraph [0016], and Tables 1, and Table 2 in view of the Background shows that the claimed electrolyte has an ionic conductivity that is improved relative to electrolytes that employ other polysiloxanes. Since there is nothing in the cited art indicating that the claimed polysiloxane would provide an electrolyte with an enhanced ionic conductivity, the Applicant has achieved an unexpected result.

Lersch Is Non-Analogous Prior Art.

In order "to rely on a reference under 35 USC §103, it must be analogous prior art." See header of MPEP §2141.01(a). Applicant submits that Lersch is non-analogous art.

MPEP §2141.01(a) provides a two-part test for determining whether a piece of prior art is analogous prior art. First, "the reference must ... be in the field of the applicant's endeavor." MPEP §2141.01(a) also cites *Wang Laboratories, Inc. vs. Toshiba Corporation*, 993 F.2d 858, 26 U.S.P.Q. 2d 1767 (Fed. Cir., 1993). Applicant's field of endeavor is batteries (see Background) while Lersch's field of endeavor could be characterized as additives for dispersion paints or lacquers (see Abstract and C5, L51-52); or could be characterized as coatings for the surfaces of pigments and fillers (see Abstract and C5, L51-52); or as polymer synthesis (see Abstract and Title). In any of these cases, Lersch's field of endeavor could NOT be characterized as batteries. As a result, Lersch fails the first part of the test.

MPEP §2141.01(a) sets forth the second part of the two-part inquiry when it states that if the reference is not in Applicant's field of endeavor, it must "be reasonably pertinent to the particular problem with which the inventor was concerned." Further, a "reference is reasonably pertinent if ... it ... logically would have commended itself to an inventor's attention in considering his problem." See MPEP §2141.01(a) citing to *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

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The “particular problem” addressed by Applicant’s claimed invention is easily identified from the Background of the specification. The last two sentences of the Background state the following:

... polysiloxane based electrolytes typically have a low ionic conductivity that limits their use to applications that do not require high rate performance. As a result, there is a need for polysiloxane-based electrolytes with an increased ionic conductivity.

As a result, the inventors are addressing the problem of low ionic conductivity in polysiloxane-based electrolytes. However, since Lersch does not even teach using the disclosed polysiloxanes in the electrolyte of an electrochemical device, Lersch does not suggest that Lersch’s polysiloxanes would increase the ionic conductivity of such an electrolyte. As a result, the inventors would not have consulted Lersch in order to solve their problem.

Because Lersch is both from a different field of endeavor and is not reasonably pertinent to the Applicant’s problem, Lersch fails both parts of the MPEP §2141.01(a) analogous art test. Because Lersch is not analogous prior art, Lersch is not available for use in a rejection of these claims under 35 USC §103 and the rejections should be withdrawn.

For any of the above reasons by itself, claims 1 and 49 are patentable over the cited art. However, when the above reasons are considered in combination, the case for the patentability of claims 1 and 49 is strengthened.

Claims 2-7, 50-54, and 66-90

Claims 2-7, 50-54, and 66-90 each depends directly or indirectly from independent claim 1 or 49. Since claims 1 and 49 are each believed to be in condition for allowance, claim 2-7, 50-54, and 66-90 are also believed to be in condition for allowance.

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CONCLUSION

The Examiner is encouraged to telephone or e-mail the undersigned with any questions.



Travis Dodd
Reg. No. 42,491
Agent for Applicant(s)

Quallion LLC
P.O. Box 923127
Sylmar, CA 91392-3127
818-833-2003 ph
818-833-2065 fax
travisd@quallion.com